



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/004,034	01/07/98	CRAGUN	B IBM/33B

WOOD HERRON & EVANS
2700 CAREW TOWER
CINCINNATI OH 45202

LM01/0329

EXAMINER

WEINHARDT, R

ART UNIT	PAPER NUMBER
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2764

DATE MAILED:

03/29/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/004,034

Applicant(s)

Cragun et al

Examiner

Robert Weinhardt

Group Art Unit

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☒ Responsive to communication(s) filed on Jan 12, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-39 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☒ Claim(s) 27-38 is/are allowed.

☒ Claim(s) 1-4, 7-12, 15-18, 20, 22-25, and 39 is/are rejected.

☒ Claim(s) 5, 6, 13, 14, 19, 21, and 26 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Allowable Subject Matter

1. Claims 5-6, 13-14, 19, 21, and 26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. Claims 27-38 are allowed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 7-12, 15-18, 20, 22-25 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deaton et al. as set forth in the Office action mailed 10/6/99.

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Applicant argues that no motivation has been established for the combination of known neural networks in the selection of sales promotions. However, the examiner asserted in the prior Office action that in addition to neural nets being well known, they are known for the advantage of being powerful tools in the analysis and determination of relationships and patterns in data. This known advantage provides motivation to make the combination. Further with regard to neural nets in selection of promotions, note Fox et al. and the articles from Electronic Engineering Times and Comline Computers made of record in this Office action. Fox et al. teaches a neural network to adjust managerial plans for promotional and advertising applications. The Comline article teaches a neural network for selecting optimal sales and marketing techniques. The Electronic Engineering Times article teaches the use of a neural network to discover how various advertising media translate into revenue. Thus, as stated before, neural nets are a well known and powerful analytical tool. Further, as demonstrated above, they are known in the business art and are known to be applied to the selection of promotions.

Applicant argues that the examiner's rejection seems to be a rejection of all applications of neural networks, but this is not so. Applicant is considering neural nets in a vacuum away from the teachings of Deaton. Note that the Official Notice is not relied on alone in this rejection as the examiner also relied on the teachings of Deaton to show the types of decisions that need to be made. The assertion by the examiner is

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that neural nets would have been an obvious tool to produce the decisions taught by Deaton, not that neural nets alone teach the entirety of the claimed invention.

With respect to selective adaptation, the training and retraining of neural networks is well known. An application of neural networks in this environment would have obviously included fine tuning of the network to produce more accurate results. This provides the recited selection adaptation for future customers.

New claim 39 parallels the limitations found in claims 3 and 4 and is rejected for similar reasons. Applicant argues the examiner's rejection of claim 4, but as mentioned previously Deaton teaches that the groupings of the products can be manipulated based on any number of variables. In light of the obvious retraining of neural nets and the teachings of Deaton regarding missing items from purchase groups, it would have been obvious to adjust the groups to provide more accurate promotions.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fox et al. teaches a neural network to adjust managerial plans for promotional and advertising applications. The Comline article teaches a neural network for selecting optimal sales and marketing techniques. The Electronic Engineering Times

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article teaches the use of a neural network to discover how various advertising media translate into revenue.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Weinhardt whose telephone number is (703) 305-9780. The examiner can normally be reached on Monday-Friday from 7:30 AM - 4:00 PM. The examiner can also be reached at the e-mail address:
robert.weinhardt@uspto.gov

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell, can be reached on (703) 305-9768. Facsimile transmissions to this Group may be directed to (703) 308-1396.

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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

March 27, 2000


ROBERT A. WEINHARDT
PRIMARY EXAMINER